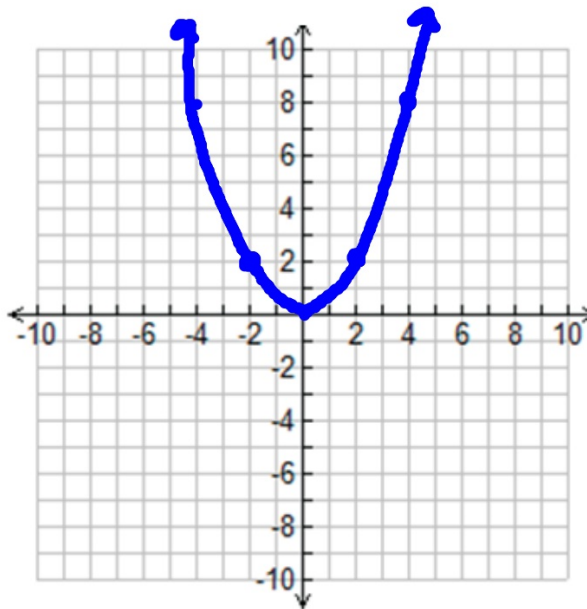


Bellwork: 11/7/12

Tell us three things about the graph below.



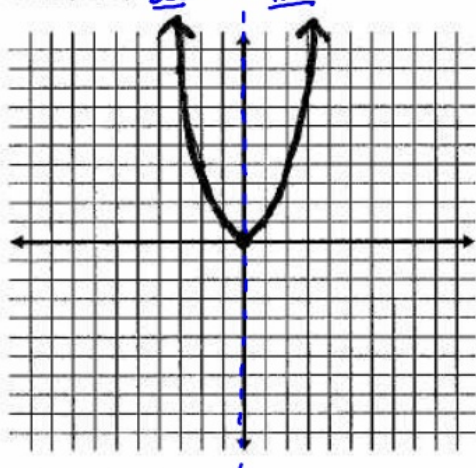
Vertex: $(0, 0)$

Function: Yes

D: $(-\infty, \infty)$

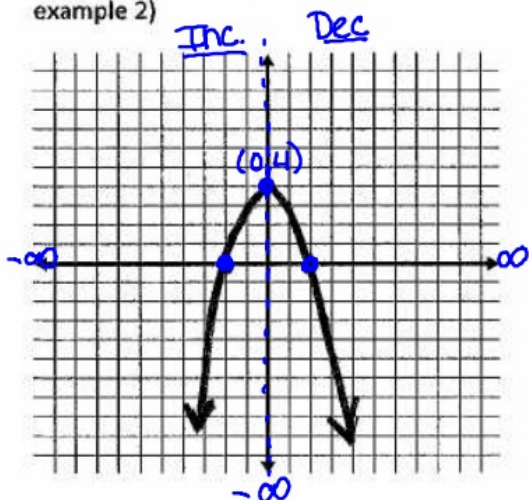
opens up
parabola

R: $[0, \infty)$

Notes - Analyzing Quadratic Graphs: must have $x^2 \rightarrow$ graph is a parabolaDomain: x values from left to rightRange: y values from bottom to topMax/Min: max \rightarrow highest point
min \rightarrow lowest point } vertex of parabolaInterval of Increase: interval over the domain(x) where graph goes UPInterval of Decrease: interval over the domain(x) where graph goes DOWNx-intercept: point(s) where the graph crosses the x axis.y-intercept: point(s) where the graph crosses the y axis.example 1) dec. : inc

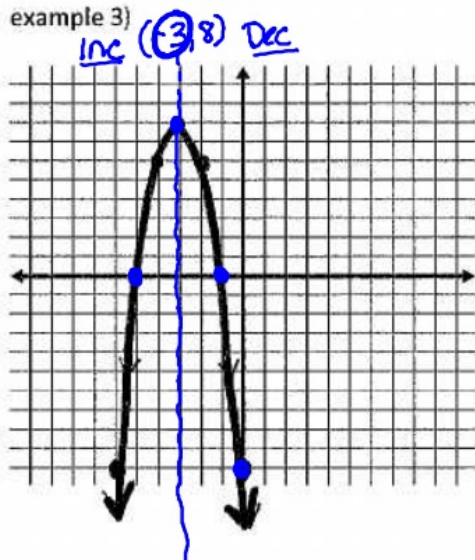
$x \rightarrow R$	Domain $(-\infty, \infty)$
$y \rightarrow T$	Range $[0, \infty)$
high / low	Max/Min $(0, 0)$
x values \uparrow	Increasing $(0, \infty)$
x values \downarrow	Decreasing $(-\infty, 0)$
cross x	x-intercept $(0, 0)$
cross y	y-intercept $(0, 0)$

example 2)



$x \rightarrow R$	Domain $(-\infty, \infty)$
$y \rightarrow T$	Range $(-\infty, 4]$
high / low	Max/Min $(0, 4)$
x values \uparrow	Increasing $(-\infty, 0)$
x values \downarrow	Decreasing $(0, \infty)$
cross x	x-intercept $(-2, 0) \text{ and } (2, 0)$
cross y	y-intercept $(0, 4)$

example 3)



x $L \rightarrow R$

y $B \rightarrow T$

high/low

X VALUES!

cross x

cross y

Domain $(-\infty, \infty)$

Range $(-\infty, 8]$

Max/Min $(-3, 8)$

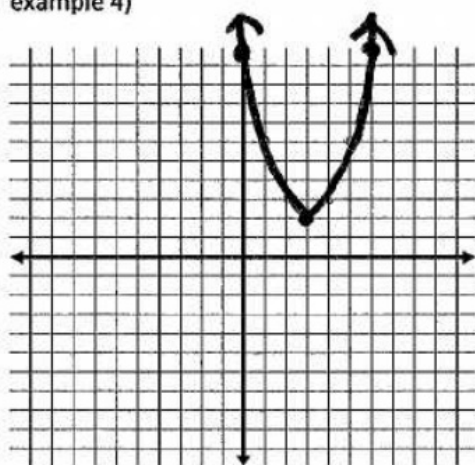
Increasing $(-\infty, -3)$

Decreasing $(-3, \infty)$

x-intercept $(-5, 0) + (-1, 0)$

y-intercept $(0, -10)$

example 4)



Domain _____

Range _____

Max/Min _____

Increasing _____

Decreasing _____

x-intercept _____

y-intercept _____

Homework: 11/7/12

Handout on analyzing graphs